REMARKS/ARGUMENTS

In the Office Action mailed February 11, 2009, claims 1-20 were rejected. In response, Applicants hereby request reconsideration of the application in view of the below-provided remarks. No claims are amended, added, or canceled.

Claim Rejections under 35 U.S.C. 103

Claims 1, 5, 8, and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (WO 02/13427, hereinafter Henriksson) in view of Hane (U.S. Pat. No. 4,728,955, hereinafter Hane). Additionally, claims 2-4, 6, 7, and 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson in view of Hane and further in view of Asam et al. (U.S. Pat. No. 6,853,836, hereinafter Asam). Additionally, claims 12, 13, 17, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson in view of Hane and further in view of Johnson (U.S. Pat. No. 6,766,150, hereinafter Johnson). Additionally, claims 14 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson, in view of Hane, and further in view of Kim et al. (U.S. Pat. No. 6,313,644, hereinafter Kim). Additionally, claims 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson in view of Hane and Asam and further in view of Rodgers et al. (U.S. Pat. Pub. No. 2002/0011932, hereinafter Rodgers). However, Applicants respectfully submit that these claims are patentable over Henriksson, Hane, Asam, Johnson, Kim, and Rodgers for the reasons provided below.

Independent Claim 1

Applicants respectfully assert that independent claim 1 is patentable over the cited references at least for the reasons stated below. In particular, claim 1 recites "<u>first means</u> for recovering a part of a signal generated by the transmission channel at a first frequency, <u>second means for converting said recovered signal</u> from the first frequency into a second frequency, <u>an amplifier</u> for amplifying said signal at this second frequency, and <u>a rectifier</u> for rectifying said signal" (emphasis added).

The Office Actions states that Henriksson fails to teach first means for recovering a part of the signal, second means for converting said recovered signal, an amplifier, and a rectifier. In other words, Henriksson does not teach any of these elements. Thus, the Office Action relies on Hane as purportedly teaching these elements. However, the Office Action does not establish a *prima facie* rejection of claim 1, as explained below.

In order to establish a *prima facie* rejection of a claim under 35 U.S.C. 103, the Office Action must present a clear articulation of the reason why the claimed invention would have been obvious. MPEP 2142 (citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. __ (2007)). The analysis must be made <u>explicit</u>. Id. Additionally, rejections based on obviousness cannot be sustained by <u>mere conclusory statements</u>; instead there must be some <u>articulated reasoning</u> with some <u>rational underpinning</u> to support the legal conclusion of obviousness. Id.

Applicants submit that the reasoning presented in the Office Action fails to establish a *prima facie* rejection of the claim. In particular, the Office Action fails to establish a *prima facie* rejection based on obviousness because the Office Action does not provide articulated reasoning with a rational underpinning to support the legal conclusion of obviousness.

In support of the proposed combination of the teachings of Hane with Henriksson, the Office Action states:

It is well known in the art to combine the known elements such as a coupler, mixer, amplifier, and rectifier into the test module of Henriksson to arrive [at] the claimed invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Hane into [sic.] view of Henriksson in order to communicate in a short range. Office Action, page 4, lines 7-9 (underlining added).

It should be noted that the first statement referenced above from the Office Action is a mere conclusory statement because it concludes the purported well-known nature of a specific combination without providing any reason to show how the specific combination might be well-known. Although it may be known to use electronic components in electronic circuits, generally, such knowledge does not support the assertion that it might be well-known to use the specific components described in Hane within the specific test module of Henriksson.

In regard to the second statement referenced above, the Office Action articulates a reason—to communicate in a short range—in support of the legal conclusion of obvious based on the combination of Henriksson and Hane. However, this articulated reasoning is not supported by rational underpinning because the device of Henriksson is apparently capable of communicating in a short range without the additional teachings of Hane. Henriksson specifically teaches that the transmission frequency range of the transmitter part of Fig. 5 is between 925 MHz and 960 MHz. Henriksson, paragraph 22. This frequency range is known to be used for communicating over short distances. While this frequency range also may be used to communicate radio frequency (RF) signals over longer ranges, the ability to facilitate longer range communications does not negate the fact that these frequencies are also used to communicate RF signals over relatively short distances. Moreover, although the Office Action does not specify what is meant by the phrase "a short range," the description of using frequencies between 925-960 MHz inherently indicates that the system of Henriksson is already capable of communicating in a short range.

Thus, there is no rational underpinning to support the articulated reasoning that the proposed combination of Hane and Henriksson would facilitate communication in a short range because there would be no need to use the teachings of Hane to achieve functionality that is apparently available with only the teachings of Henriksson. Furthermore, despite the assertion set forth in the Office Action, there would be no benefit to combining the teachings of Hane with Henriksson because the device of Henriksson alone is already capable of communicating in a short range using frequencies between 925-960 MHz. Therefore, the functionality suggested by the Office Action as achievable through the proposed combination of Hane and Henriksson is apparently achieved by Henriksson alone, so the asserted explanation does not provide a rational underpinning to support the proposed combination of cited references.

For the reasons presented above, the Office Action fails to establish a *prima facie* rejection for claim 1 because the Office Action does not provide a rational underpinning for the articulated reasoning asserted in support of the legal conclusion of obviousness. Accordingly, Applicants respectfully submit that the rejection of claim 1 under 35 U.S.C.

103(a) should be withdrawn because the Office Action fails to establish a *prima facie* rejection.

Independent Claims 5 and 8

Applicants respectfully assert independent claims 5 and 8 are patentable over the cited combination of Henriksson with Hane at least for similar reasons to those stated above in regard to the rejection of independent claim 1. Each of claims 5 and 8 recites subject matter which is similar to the subject matter of claim 1 discussed above. Although the language of these claims differs from the language of claim 1, and the scope of these claims should be interpreted independently of other claims, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of these claims.

Dependent Claims

Claims 2-4, 6, 7, and 9-20 depend from and incorporate all of the limitations of the corresponding independent claims 1, 5, and 8. Applicants respectfully assert claims 2-4, 6, 7, and 9-20 are allowable based on allowable base claims. Additionally, each of claims 2-4, 6, 7, and 9-20 may be allowable for further reasons as stated below.

In regard to claim 2, Applicants respectfully submit that claim 2 is patentable over the combination of Henriksson, Hane, and Asam because the combination of cited references does not teach all of the limitations of the claim. In particular, Asam does not teach a means for detecting the validity of a signal generated by the transmission channel, and the Office Action does not assert that the other references might teach the indicated limitation. The Office Action suggests that the phase and frequency detector PFD of Asam is means for detecting the validity of the signal generated by the transmission channel, as recited in the claim. However, the PFD of Asam is only means for matching a clock or other signal to an incoming signal (from the transmission channel, for example). Asam, col. 5, lines 60-65. The process of signal matching described in Asam does not validate the signal from the transmission channel but merely matches the signals to discover the phase and frequency variance. Thus, the combination of cited references fails to teach means for validating a clock or other signal to an incoming signal.

Additionally, the Office Action suggests that the PFD would provide for a low energy need for the device as suggested by Asam. However, the Office Action fails to describe how incorporation of the PFD of Asam into the combination of references might achieve the purported result of providing for low energy device needs. Therefore, Applicants submit that claim 2 is patentable over the combination of Henriksson, Hane, and Asam because the combination of cited references does not teach all of the limitations of the claim.

In regard to the rejection of claims 3, 7, and 10, Applicants submit that the rejections of claims 3, 7, and 10 are improper because the Office Action fails to establish *prima facie* rejections for claims 3, 7, and 10. The requirements to establish a *prima facie* rejection are set forth above. In the rejections of claims 3, 7, and 10, the Office Action states that "Asam further teaches a filter for filtering [a] harmonics signal (see filter TP)." Office Action, page 5, lines 5-6. However, the Office Action fails to provide any articulated reasoning with some rational underpinning to support an assertion of obviousness. In fact, the Office Action does not even assert that it might have been obvious to one of ordinary skill in the art to combine the indicated teaching of Assam with the teachings of Henriksson and Hane. Rather, the Office Action is silent as to any assertion or conclusion of obviousness, or any explanation of articulated reasoning with some rational underpinning. Therefore, the Office Action fails to establish *prima facie* rejections for claims 3, 7, and 10 because the Office Action does not provide a rational underpinning for articulated reasoning asserted in support of the legal conclusion of obviousness.

In regard to the rejection of claim 4, Applicants submit that the rejection of claim 4 is improper because the Office Action fails to establish a *prima facie* rejection for claim 4. The requirements to establish a *prima facie* rejection are set forth above. In the rejection of claim 4, the Office Action states that "Asam further teaches the first frequency (RF)_ is a radio frequency and the second frequency (IF) is a low frequency (see col.6, ln.1-45)." Office Action, page 5, lines 5-6. However, the Office Action fails to provide any <u>articulated reasoning with some rational underpinning</u> to support an assertion of obviousness. In fact, the Office Action does not even assert that it might have been obvious to one of ordinary skill in the art to combine the indicated teaching of

Assam with the teachings of Henriksson and Hane. Rather, the Office Action is silent as to any assertion or conclusion of obviousness, or any explanation of articulated reasoning with some rational underpinning. Therefore, the Office Action fails to establish a *prima facie* rejection for claim 4 because the Office Action does not provide a rational underpinning for articulated reasoning asserted in support of the legal conclusion of obviousness.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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